



State of Utah

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Department of Environmental Quality

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Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-IN0127760005-09

February 19, 2009

Mike Edwards
Geneva Rock Products
1565 West 400 North
P.O. Box 538
Orem, UT 84057

Dear Mr. Edwards:

Re: Intent to Approve: Approval Order Modification to DAQE-AN2776002-04 for Addition of Aggregate Processing Equipment and Revisions to Increase Aggregate Production and Horsepower-Hours of Operation for Diesel Generators, Salt Lake County; CDS B; NSPS (Part 60), NSR, PM₁₀ SIP / Maint Plan, Title V (Part 70)
Project Number: N012776-0005

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an Approval Order. An invoice will follow upon issuance of the final Approval Order.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Jon Black, who may be reached at (801) 536-4047.

Sincerely,

Ty L Howard, Manager
New Source Review Section

TLH:JB:kw

cc: Mike Owens
Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: Approval Order Modification to DAQE-AN2776002-04 for Addition of Aggregate Processing Equipment and Revisions to Increase Aggregate Production and Horsepower-Hours of Operation for Diesel Generators

**Prepared By: Jon Black, Engineer
Phone: (801) 536-4047
Email: jlblack@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN0127760005-09

Date: February 19, 2009

Mount Jordan Operations

**Source Contact:
Mr. Mike Edwards
Phone: (801) 281-7890**

**Ty L Howard, Manager
New Source Review Section
Utah Division of Air Quality**

ABSTRACT

Geneva Rock Products (GRP) submitted a Notice of Intent for a modification to AO DAQE-AN2776002-04 dated May 24, 2004 (Mount Jordan Plant). The proposed modification is for addition of new aggregate processing equipment and revisions to increase aggregate production and diesel generator hours of operation. GRP's Mount Jordan plant is located at 15800 South 500 West, Bluffdale, Utah in Salt Lake County. Salt Lake County is a non-attainment area of the NAAQS for PM₁₀, SO₂, and a maintenance area for Ozone. NSPS 40 CFR 60 Subparts A and OOO regulations apply to this source. NESHAP and MACT requirements do not apply to this source. Title V of the 1990 Clean Air Act applies to this source. Emissions from this source shall be limited to the following, in tons per year, totals: PM₁₀ - 108.44, PM_{2.5} - 10.21, NO_x - 2.70, SO_x - 0.18, CO - 0.58, VOC - 0.33, HAPs - 0.001.

Under Utah Air Quality Rule R307-403-5: Offsets: PM₁₀ Nonattainment Areas, any increase in combined PM₁₀, SO₂, and NO_x emissions, which exceed 50 tons/year shall obtain offsets at the ratio of 1.2:1 for the emission increase. The potential increase in emission of combined PM₁₀, SO₂, and NO_x emissions for GRP's proposal is 47.27 tons which requires a total of 47.27 emission offset credits with the 1:1 offset ratio applied. Also, potential emission rates of PM₁₀ do exceed the Major Source threshold of 100 tons/year. Because a large portion of this site consists of fugitive emission sources, and this site is designated as an aggregate plant, GRP's Mount Jordan pit shall be considered a Minor source (See UAC R307-101-2 Definition of Major Source).

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Newspaper Agency Corp. MediaOne on February 23, 2009. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

Name of Permittee:

Geneva Rock Products
1565 West 400 North
P.O. Box 538
Orem, UT 84057

Permitted Location:

Mount Jordan Operations
Across I-15 from Pt. of Mtn.
Facility on West side
Salt Lake City, UT

UTM coordinates: 422500 m Easting, 4479700 m Northing
SIC code: 1442 (Construction Sand & Gravel)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the

UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

- I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
- I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
- I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401]
- I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
- I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]
- I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

- II.A.1 **Mount Jordan Aggregate Processing Plant**
- II.A.2 **Transfer Conveyors**
75-2001 Operation - Miscellaneous Transfer Conveyors with varying capacities
- II.A.3 **Stacker Conveyors**
75-2001 Operation - Miscellaneous Stacker Conveyors with varying capacities
- II.A.4 **Transfer Conveyors**
75-2021 Operation - Miscellaneous Transfer Conveyors with varying capacities
- II.A.5 **Stacker Conveyors**
75-2021 Operation - Miscellaneous Stacker Conveyors with varying capacities

II.A.6	Conveyor Portable Screening Plant – Conveyor
II.A.7	Stacker Conveyor Portable Screening Plant - Miscellaneous Stacker Conveyors
II.A.8	Crusher - CRU1 75-2021 Operation - Crusher - 750 tph
II.A.9	Diesel Generator Diesel Generator - 174 hp
II.A.10	Feeder 75-2001 Operation - 1000 tph
II.A.11	Log Washer 75-2001 Operation - 500 tph
II.A.12	Screw Washer - SCW1 75-2001 Operation - 550 tph
II.A.13	Screw Washer - SCW2 75-2001 Operation - 550 tph
II.A.14	Feeder 75-2021 Operation - 1,500 tph
II.A.15	Screw Washer - SCW1 75-2021 Operation - Screw Washer - 800 tph
II.A.16	Screw Washer - SCW2 75-2021 Operation - Screw Washer - 800 tph
II.A.17	Screw Washer - SCW3 75-2021 Operation - Screw Washer - 800 tph
II.A.18	Screw Washer - SCW4 75-2021 Operation - Screw Washer - 800 tph
II.A.19	Classifier 75-2021 Operation – Classifier
II.A.20	Screw Washer - SCW5 75-2021 Operation - Screw Washer - 800 tph
II.A.21	Screw Washer - SCW6 75-2021 Operation - Screw Washer - 800 tph

- II.A.22 **Grizzly Feeder**
Portable Screening Plant - Grizzly Feeder - 600 tph
- II.A.23 **Wet Screen - WS1**
75-2001 Operation - Wet Screen - 500 tons per hour (tph)
- II.A.24 **Wet Screen - WS2**
75-2001 Operation - Wet Screen - 500 tph
- II.A.25 **Screen - SCR1**
75-2001 Operation - Screen - 1000 tph
- II.A.26 **Wet Screen - WS3**
75-2001 Operation - Wet Screen - 500 tph
- II.A.27 **Screen - SCR1**
75-2021 Operation - Screen - 1500 tph
- II.A.28 **Screen - SCR2**
75-2021 Operation - Screen - 1500 tph
- II.A.29 **Wet Screen - WSC1**
75-2021 Operation - Wet Screen - 750 tph
- II.A.30 **Wet Screen - WSC2**
75-2021 Operation - Wet Screen - 750 tph
- II.A.31 **Wet Screen - WSC3**
75-2021 Operation - Wet Screen - 750 tph
- II.A.32 **Wet Screen - WSC4**
75-2021 Operation - Wet Screen - 750 tph
- II.A.33 **Screen - SCR1**
Portable Screening Plant - 600 tph

II.B Requirements and Limitations

- II.B.1 **The Mount Jordan Plant Shall Operate in Accordance with the Following**
- II.B.1.a The GRP Mount Jordan plant is a State Implementation Plan (SIP) source consisting of the Hansen-Lehi and Mount Jordan pits and is listed in Section IX, Part H, Page 12 of the Salt Lake County SIP. [SIP Section IX.H.2.b]
- II.B.1.b GRP shall notify the Executive Secretary in writing when the installation of the equipment listed in this AO has been completed and is operational. To ensure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the construction and/or installation has not been completed within 18 months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO. [R307-401]

II.B.1.c Unless otherwise specified in this AO, visible emissions from the following emission points shall not exceed the following values:

- A. All crushers - 15% opacity
- B. All screens - 10% opacity
- C. All conveyor transfer points - 10% opacity
- D. All diesel engines - 20% opacity
- E. All conveyor drop points - 20% opacity
- G. All other points - 20% opacity. [R307-401]

II.B.1.d The following production limit shall not be exceeded:

Aggregate Production

- A. 3,574,560 tons of processed aggregate production per rolling 12-month period.
- B. 1,000,000 tons of bank run material per rolling 12-month period.

Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by production scales, scale house records, vendor receipts, fuel delivery/usage records and/or any other appropriate mechanism. All bank run material shall be weighed and accounted for prior to leaving the Mount Jordan plant property. The records of production shall be kept on a daily basis. To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months.

Note: Processed is defined as passing through a crushing or screening unit prior to product usage or delivery. [R307-401]

II.B.1.e In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, NSPS Subpart A, 40 CFR 60.1 to 60.18 (General Provisions) and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to the affected equipment located at the GRP Mount Jordan pit operation.

To be in compliance, this source must operate in accordance with the most current version of 40 CFR 60 applicable to this source. [R307-401]

II.B.2 Roads and Fugitive Dust Activities Requirements

II.B.2.a The hours of operation for all bulldozers at the Mount Jordan plant shall not exceed 10,320 hours combined per rolling 12-month period.

To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12

months. The hours of operation of each bulldozer shall be added together to determine the total hours. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log. [R307-401]

- II.B.2.c Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20 percent opacity. Visible emission determinations for traffic sources shall use procedures similar to Method 9, as described in the Fugitive Dust Control Plan (FDCP) for the site. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply.

When the Executive Secretary or Executive Secretary's representative is on site to observe opacity, six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle. The accumulated six readings shall be averaged for the compliance value. [R307-401]

- II.B.2.d GRP shall abide by a FDCP acceptable to the Executive Secretary for control of all fugitive dust sources associated with the Mount Jordan plant. GRP shall submit two copies of the FDCP to the Executive Secretary, attention: New Source Review Section and Compliance Section, for approval. Subsequent updates to the FDCP shall be submitted and approved in accordance with the above stated requirements. GRP shall abide by the most current FDCP approved by the Executive Secretary. The haul road speed shall be posted. [R307-401]

- II.B.2.e Control of surfaces subject to wind erosion shall be required and addressed within the FDCP. [R307-401]

- II.B.2.f All paved and unpaved roads and other unpaved operational areas that are used by mobile equipment shall be maintained to control fugitive dust in accordance with the FDCP. The opacity of any haul road, paved or unpaved, shall not exceed 20 percent during all times the areas are in use. Records, as required by the FDCP, of control treatments shall be kept for all periods when the plant is in operation. [R307-401]

- II.B.2.g Water sprays or chemical dust suppression sprays shall be installed at the following points to control fugitive emissions:

- A. All crusher inlet and outlet points
- B. All dry screens
- C. All dry conveyor transfer and stacker drop points

The sprays shall operate whenever conditions warrant, as outlined in the FDCP, to meet the opacity requirements of this AO. [R307-401]

- II.B.2.h The storage piles shall be watered to minimize generation of fugitive dust as conditions warrant, as outlined in the FDCP. [R307-401]

- II.B.2.i GRP shall abide by all applicable requirements of R307-309 for PM₁₀ non-attainment areas. However, to be in compliance, this source must operate in accordance with the most current version of R307-309. [R307-309]
- II.B.3 **All On-Site Diesel Fired Equipment**
- II.B.3.a The diesel generator usage shall not exceed 174,000 horsepower-hours (hp-hrs) of operation combined per rolling 12-month period.
- To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. To determine the total hp-hrs for the facility, the owner/operator shall multiply the horsepower of the engine and the hours operated for that engine and add the total hp-hrs of all the engines together. Hours of operation shall be determined by hour monitors on each engine. [R307-401]
- II.B.3.c The owner/operator shall use #1, #2 or a combination of #1 and #2 diesel fuel in all on-site diesel engines. [R307-401-1]
- II.B.3.d The sulfur content of any fuel oil or diesel burned shall not exceed:
- A. 0.05 percent by weight for diesel fuels consumed in all on-site equipment.
- The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of fuel oil shall be either by GRP's own testing or test reports from the fuel oil marketer. Certification of other fuels shall be either by GRP's own testing or test reports from the fuel marketer. [R307-401]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), OOO: Nonmetallic Mineral Processing Plnts
NSPS (Part 60), A: General Provisions

PERMIT HISTORY

The final AO will be based on the following documents:

Is Derived From

Is Derived From

Incorporates

Supersedes

Additional Requested NOI Information dated September 10, 2008

Notice of Intent Document dated July 23, 2008

Emission Credit Order DAQE-088-08 dated November 20, 2008

DAQE-AN2776002-04 dated May 24, 2004

ACRONYMS

The following lists commonly used acronyms and their associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
ATT	Attainment Area
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
MACT	Maximum Achievable Control Technology
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO _x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM ₁₀	Particulate matter less than 10 microns in size
PM _{2.5}	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO ₂	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds